



## Synthetic surfaces for human embryonic stem cell culture.

Journal: J Biotechnol

Publication Year: 2010

Authors: Poornima Kolhar, Venkata Ramana Kotamraju, Sherry T Hikita, Dennis O Clegg, Erkki Ruoslahti

PubMed link: 20132848

Funding Grants: Synthetic Matrices for Stem Cell Growth and Differentiation, Stem cell based treatment strategy

for Age-related Macular Degeneration (AMD), Training Program in Stem Cell Biology and

Engineering, The UCSB Laboratory for Stem Cell Biology and Engineering

## **Public Summary:**

Human embryonic stem cells (hESCs) have numerous potential biomedical applications owing to their unique abilities for self-renewal and pluripotency. Successful clinical application of hESCs and derivatives necessitates the culture of these cells in a fully defined environment. We have developed a novel peptide-based surface that uses a high-affinity cyclic RGD peptide for culture of hESCs under chemically defined conditions.

## **Scientific Abstract:**

Human embryonic stem cells (hESCs) have numerous potential biomedical applications owing to their unique abilities for self-renewal and pluripotency. Successful clinical application of hESCs and derivatives necessitates the culture of these cells in a fully defined environment. We have developed a novel peptide-based surface that uses a high-affinity cyclic RGD peptide for culture of hESCs under chemically defined conditions.

 $\textbf{Source URL:} \ https://www.cirm.ca.gov/about-cirm/publications/synthetic-surfaces-human-embryonic-stem-cell-culture with the surface of t$